Overview

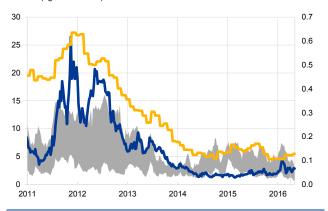
Euro area systemic stress has remained contained despite a challenging external and financial environment. Rising vulnerabilities stemming from emerging market economies (EMEs), coupled with occasional bouts of financial market turbulence, have tested the resilience of the euro area financial system over the past six months. Overall, the euro area financial system has been able to absorb the tensions, with standard indicators of bank, sovereign and financial stress all standing at low levels in mid-May 2016 (see **Chart 1**).

Chart 1Bank, sovereign and financial stress has remained contained in the euro area

Financial stress index, composite indicator of sovereign systemic stress and the probability of default of two or more banking groups

(Jan. 2011 – May 2016)

- probability of default of two or more LCBGs (percentage probability, left-hand scale)
- composite indicator of systemic stress in sovereign bond markets (right-hand scale)
- 10th-90th percentile range of country-specific financial stress index (right-hand scale)



Sources: Bloomberg and ECB calculations.

Notes: "Probability of default of two or more LCBGs" refers to the probability of simultaneous defaults in the sample of 15 large and complex banking groups (LCBGs) over a one-year horizon. The financial stress index measures stress in financial markets at the country level based on three market segments (equity, bond and foreign exchange) and the cross-correlation among them. For details, see Duprey, T., Klaus, B. and Peltonen, T., "Dating systemic financial stress episodes in the EU countries", Working Paper Series, No 1873, ECB, December 2015.

Vulnerabilities arising from slowing EME growth prospects have continued to rise since the beginning of the year. From a euro area financial stability perspective, vulnerabilities stemming from China are a particularly important source of risk given the country's growing role in global trade and financial markets. Vulnerabilities are, however, also on the rise in several other EMEs, notably those with close ties with China. Contributing further to EME vulnerabilities is the high private sector leverage observed in several of these countries. Private sector indebtedness is at historically high levels in several EMEs and a large share of this debt is denominated in foreign currencies. All in all, a sharper than expected fall in Chinese growth could well lead to a synchronised downturn across other EMEs, particularly commodity-exporting economies. Under such a scenario, the financial systems of advanced economies may be challenged by a reduction in consumer and business confidence, and renewed financial market volatility potentially intensified by sudden stops in or reversals of cross-border capital flows.

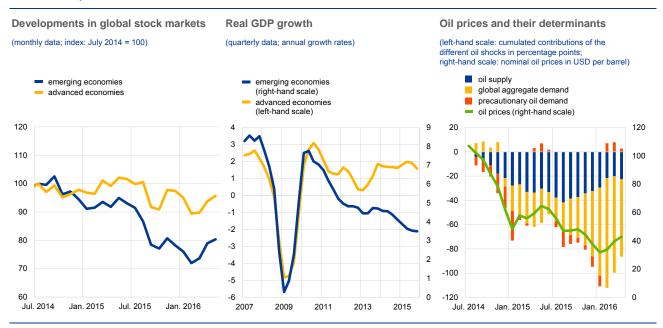
Oil prices have been volatile, but remain at low levels, increasingly reflecting weakening demand and higher credit risk. In general, low oil prices would be beneficial for importing economies such as the euro

area as they reduce energy costs. However, exposures of the global financial system to the energy sector have been growing over the past decade and ECB staff calculations point to an increasing role of demand factors in explaining oil price developments. This gradual shift may bode less well for future economic activity than if supply factors had continued to play a large role in declining oil prices. The current low oil prices are below the marginal cost for several oil producers and also below fiscal breakeven prices for a number of oil-exporting countries. Thus, a prolonged period of low oil prices raises questions about the medium-term viability of oil firms'

business structure and may further spur credit risk concerns and higher premia demanded on riskier global assets.

These developments come amid signs of rising financial market spillovers from EMEs to advanced economies. Prices of risky assets, such as high-yield corporate bonds and equities in EMEs, fell sharply at the turn of the year and there was a significant spillover of the turmoil to advanced economy financial markets and banking sectors. This pattern repeated a tendency of the past few years whereby euro area and other advanced economies' asset prices have become increasingly sensitive to EME-related developments. The sharp fall in equity prices in EMEs in recent quarters appears closely related to growing macro-financial vulnerabilities, including the higher credit risk related to low and volatile oil prices (see Chart 2).

Chart 2
Lower global stock prices reflect the slowdown in EME growth prospects and higher credit concerns stemming from low oil prices



Sources: National accounts, Thomson Reuters Datastream and ECB calculations.

Notes: Latest observations: left chart: May 2016; middle chart: Q4 2015; right chart: April 2016. The historical breakdowns of oil prices have been normalised to start at zero in July 2014, when Brent crude oil prices started dropping. A declining contribution indicates that a specific "oil shock" contributed to lowering oil prices and vice versa. The breakdown is based on Kilian, L. and Murphy, D. P., "The role of inventories and speculative trading in the global market for crude oil", *Journal of Applied Econometrics*, Vol. 29(3), 2004, pp. 454-478.

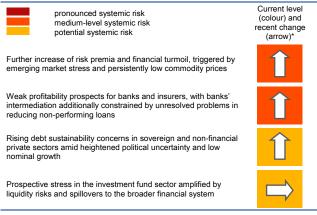
Along with these challenging global conditions, euro area banks continue to be confronted with an outlook of low profitability amid the weak economic recovery and, in certain jurisdictions, high stocks of non-performing assets.

Banks' return on equity has remained subdued in recent quarters and continues to hover below their cost of equity. The low interest rate environment, a tepid economic recovery and the more challenging external and market environment have all had a dampening impact on banks' profitability prospects. In addition, a large stock of non-performing loans in a number of countries is constraining banks' lending capacity and profitability. Offsetting this, the collective weight of ECB monetary policy measures should support funding conditions for banks further, while also strengthening their profitability via higher loan demand. That said, these measures

alone are not sufficient to ensure a profitable and healthy banking sector over the medium term. Some banks may need to further adapt their business models to ensure long-term sustainability – via consolidation, cost-cutting or other efficiency measures.

Risks to financial stability stem not only from the banking sector, but also from the broader financial system including a rapidly growing investment fund sector. In recent quarters investment fund growth in the euro area has slowed owing to elevated price volatility and a partial reversal of fund flows, mainly due to emerging market stress. Still, the expansion of this sector over the last years has been remarkable, with a doubling in size since 2008. While the sector's increasing role in credit intermediation and capital markets provides useful diversification benefits for the real economy, fragilities might also be associated with the exceptional growth given that risk-taking and interconnectedness with the rest of the financial system have been steadily increasing over time.

Table 1Key risks to euro area financial stability



^{*} The colour indicates the cumulated level of risk, which is a combination of the probability of materialisation and an estimate of the likely systemic impact of the identified risk over the next 24 months, based on the judgement of the ECB's staff. The arrows indicate whether the risk has increased since the previous FSR.

Risks also extend to the real economy, where indebtedness across sovereign and non-financial private sectors remains elevated. Delayed or insufficient fiscal and structural reforms in the context of a prolonged period of low nominal growth prospects would challenge sovereign debt sustainability. Furthermore, rising political risks amid increasing support for political forces which are seen to be less reform-oriented could translate into higher risk premia and lead to debt sustainability concerns for the sovereign sector, potentially spilling over into the non-financial private sector.

In this environment, there are four key sources of risk for euro area financial stability over the next two years. Compared with the November 2015 FSR,

most risks have increased (see **Table 1**). At the same time, all risks are clearly intertwined and would, if they were to materialise, have the potential to be mutually reinforcing. Indeed, all risks could be aggravated by a materialisation of downside risks to economic growth.

Risk 1: Further increase of risk premia and financial turmoil, triggered by emerging market stress and persistently low commodity prices

High volatility in global financial markets has prevailed over the past six months amid a rise in vulnerabilities of EMEs. An abrupt reversal of global risk premia has been signalled as a key risk for euro area financial stability for some years now. This risk partly materialised around the turn of the year when global financial market sentiment suddenly deteriorated. Higher global risk aversion was

triggered by renewed volatility in Chinese stock prices and mounting concerns about EMEs more generally. Prices in some of the riskier asset segments, such as equity markets and lower-rated corporate bonds, fell sharply, also in the euro area (see **Chart 3**). ECB measures announced in March eased some of the tensions and the riskier asset segments recovered some of the earlier losses. Some market segments, crucial for the functioning of the financial system, were, however, less affected by the turmoil. In particular, euro area money and sovereign bond markets have remained broadly stable since the November 2015 FSR.

Chart 3

Prices of riskier assets in EMEs and in the euro area were significantly affected by the turmoil in early 2016

Developments in stock prices and high-yield corporate bonds in the euro area and EMEs

(25 Nov. 2015 - 13 May 2016; daily data; changes in yields; percentages per annum; stock prices indexed to 100 at 25 Nov. 2015)

EME high-yield bonds (left-hand scale)
 euro area high-yield bonds (left-hand scale)
 EME stock prices (right-hand scale)



Sources: Bloomberg, Thomson Reuters Datastream and ECB calculations. Notes: Datastream's total stock market indices are used. Euro area index in EUR and emerging market index in USD.

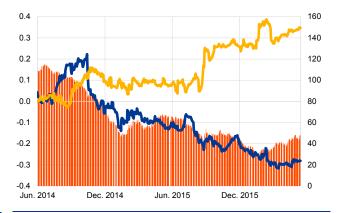
Chart 4

Higher correlations between riskier assets and oil prices indicate lower global risk appetite

Median bilateral correlations between riskier/safer global assets and oil prices

(1 June 2014 – 13 May 2016; daily data; left-hand scale: 180-day moving correlations for riskier and safer assets vis-à-vis oil prices; right-hand scale: Brent oil prices in USD)

- correlation of safer global assets and oil prices (left-hand scale)
 correlation of riskier global assets and oil prices (left-hand scale)
- level of oil prices (right-hand scale)



Sources: Bloomberg and ECB calculations.

Notes: Moving correlations are calculated for daily asset class returns over 180-day windows. Riskier assets are defined as government bonds issued by euro area countries most affected by the financial crisis, high-yield corporate bonds and equity indices for the euro area, the UK, the US and Japan. Safer assets are defined as investment-grade and government bond market indices for other euro area countries, the UK, the US and

Oil price developments have become conflated with lower global growth expectations, while also affecting global asset price movements. Oil prices have been volatile and fallen sharply since the peak observed in mid-2014 when Brent crude hovered close to USD 115 per barrel. In mid-May 2016 Brent crude stood at USD 47 per barrel. The lower oil prices have contributed to higher credit risk and have signalled lower growth prospects, particularly for oil-exporting EMEs. Global financial markets have been influenced by oil price developments as the latter have acted as a bellwether of global economic activity. This has implied a tighter link between risk premia on certain assets and oil prices. As oil prices in 2015 dropped well below even the most bearish expectations, the correlations between oil prices and riskier global asset prices have increased (see Chart 4). Oil price developments have also influenced market developments in advanced economies. In particular, market-based indicators of inflation expectations have been highly correlated with oil price movements since the peak in oil prices in mid-2014. This pattern reflects some

concerns among investors that oil price movements not only increasingly reflect weak demand conditions, but also that inflation expectations may have become more adaptive and closely tied to persistently low inflation outcomes. Clearly, any prospect of a protracted period of deflation would be detrimental to financial stability.

The near-term risk of higher global interest rates, notably in the United States, has receded as the global growth outlook has worsened. While the Federal Reserve tightened monetary policy at the end of last year, the expected pace of policy tightening has been revised down since that time, partly on account of a more challenging external environment. This has resulted in a narrowing of the gap between the predictions for near-term policy rates by financial markets and those by the Federal Open Market Committee. More aligned interest rate expectations reduce the risk of global asset price volatility stemming from monetary policy actions in the United States.

Within the euro area, risk premia still appear contained, with valuations of financial and real estate assets not deviating materially from fundamentals. In theory, an accommodative area-wide monetary policy may have unintended consequences for certain countries or sectors in the form of excessive risk-taking, resulting in a build-up of risks in asset and real estate markets. However, looking across the spectrum of euro area assets, using a wide range of methods, there are few signs that asset prices have generally become stretched. In sovereign bond markets, yields remain low, but this is consistent with the persistently subdued nominal growth environment. In corporate bond markets, yields are broadly in line with available indicators of credit and liquidity risk. Euro area equity prices, overall, remain fairly valued compared with their earnings cycle. On the real estate side, residential property valuations are broadly in line with those suggested by fundamentals for the euro area as a whole. The situation is, however, heterogeneous across the euro area as prices continue to recover. Valuations remain low for countries which have experienced excesses in the past, whereas somewhat stretched valuations are observed in some countries which were less affected by the financial crisis. Valuations of prime commercial property appear to be high amid strong price increases in recent quarters. Taking a wider view, risks of dangerous asset price booms and busts materialising in the euro area are limited, not least as asset price developments have not been accompanied by elevated credit growth.

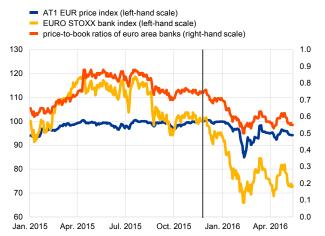
Macroprudential policies are best placed to tackle challenges, including those at the country or sector-specific level. Such policies can bolster systemic resilience and curb financial excesses that may occur, thereby allowing monetary policy to focus on its primary objective of maintaining price stability – also to the benefit of financial stability.

Risk 2: Weak profitability prospects for banks and insurers, with banks' intermediation additionally constrained by unresolved problems in reducing non-performing loans

Chart 5Strong volatility in banks' stock prices and AT1 instruments

EURO STOXX bank index, iBoxx EUR Contingent Convertible AT1 Index and price-to-book ratios for euro area banks

(1 Jan. 2015 – 13 May 2016; daily data; stock prices and iBoxx indices normalised to 100 on 25 Nov. 2015; vertical line indicates the publication of the previous FSR on 25 Nov. 2015)



Sources: Bloomberg, Thomson Reuters Datastream and ECB calculations. Note: AT1 stands for additional Tier 1.

A sharp worsening of market sentiment in relation to euro area banks around the turn of the year tested the banking sector, but had limited systemic implications. Investors became increasingly concerned about banks' ability to generate sustainable profits in a low interest rate environment. As a result of the sector-specific concerns (coupled with the abovementioned global factors), euro area banks' stock prices lost around one-third of their market value between the publication of the November 2015 FSR and the low point reached in mid-February this year. The turmoil also spilled over to some of the riskier credit segments, particularly the market for contingent convertible capital instruments (see Chart 5). Part of the fall in banks' stock prices appears to reflect an overshooting as bank valuations fell to levels below what could be justified by fundamentals. Bank shares and valuations have recovered some of the losses since mid-February, also helped by the ECB policy actions announced in March. With regard to the ECB measures, markets perceived that the dampening impact of more negative deposit facility rates on banks'

net interest margins would be compensated for by improved funding conditions stemming from the second series of targeted longer-term refinancing operations (TLTRO II). Overall, the systemic implications of the turmoil in banks' stock prices were limited. This is partly due to the fact that euro area financial institutions have, over the past few years, significantly strengthened their balance sheets and built up their resilience to adverse shocks.

In attempting to restore sustainable profitability, banks are faced with a number of challenges, both of a cyclical and a structural nature. Euro area bank profitability remains at low levels and banks' return on equity continues to hover below their cost of equity, while the return on assets remains well below its pre-crisis levels. The moderate pick-up in profitability since 2012 is related to positive contributions from net interest income, non-interest income and impairments (see Chart 6). On the cost side, the deleveraging of euro area banks in recent years has not contributed to any significant improvements in their efficiency, as suggested by stable cost-to-income ratios. In 2015 a number of banks experienced a deterioration in cost-efficiency indicators. The reasons for this include one-off contributions to the national resolution fund (in the case of Italian banks) or higher restructuring costs as part of the implementation of new business strategies in the case of some banks. Looking ahead, profitability prospects look weak. Analysts have continued to revise down their expectations for banks' medium-term profitability over the past few months. Since the beginning of the fourth quarter of 2015 analysts have revised

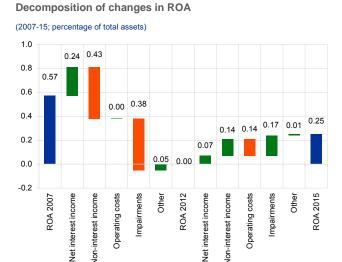
down euro area banks' net income prospects for 2016 and 2017 by around 15-20% on average.

In addition to the subdued euro area macroeconomic outlook, one growing cyclical challenge is related to banks' EME and energy exposures. While exposures to these vulnerable regions and sectors remain contained on aggregate, any further deterioration in growth prospects for vulnerable EMEs and firms in the commodity sector could also weaken some euro area banks' profitability, for instance through reduced revenues and higher credit losses.

Chart 7

Chart 6Slow improvement in euro area banks' return on assets

High stock of non-performing assets constrains banks' lending



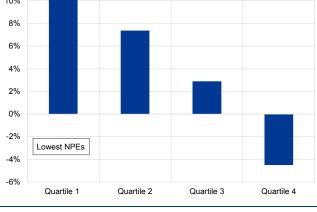
Sources: SNL Financial and ECB calculations.

Notes: Based on aggregate data for 44 euro area significant banking groups. The green and red bars indicate positive and negative contributions to changes in the return on assets (ROA), respectively.

(Q4 2014 – Q4 2015; average loan growth by quartile)

12%
10%
8%
Highest NPEs

Loan growth by non-performing exposure ratio quartiles



Sources: ECB and ECB calculations.

Note: Based on Q4 2014 non-performing exposure ratios for loans to non-financial corporations (NFCs) and growth in performing NFC loans between Q4 2014 and Q4 2015.

As for structural factors, high unresolved stocks of non-performing exposures (NPEs) hinder effective intermediation and, through lower profitability and profit retention, reduce the internal capital-generation capacity of banks. A high stock of NPEs may result in suppressed credit supply, as many borrowers remain distressed and overindebted in the absence of viable long-term restructuring solutions. Recent data on loan growth indeed suggest that banks with a high stock of non-performing loans, among other factors, have lower loan growth compared with banks with cleaner balance sheets (see Chart 7). A prolonged period of elevated NPEs remaining on banks' balance sheets can lead to a situation where resources are misallocated by tying up capital that could otherwise be used to increase lending to more viable firms. All in all, in countries where NPE problems are systemic, economic growth may be negatively affected, leading to adverse second-round effects for the banking system.

Going forward, a number of banks still need to adapt their business models to the new operating environment characterised by rapid technological innovation and low interest rates in a weak economic environment. Banks' responses will differ depending on the extent to which their business activities are diversified, on the scope to (further) increase cost efficiency or on the competitive situation in the national banking markets they operate in. Furthermore, banks with high exposure to fixed rate lending should be aware of the longer-term risks related to higher interest rates.

Weak profitability expectations also remain a key financial stability concern for the insurance sector. Despite the current comfortable solvency positions supported by strong balance sheets and thus far resilient earnings, the prolonged low-yield environment continues to weaken insurers' profits as investment returns continue to decline. The insurance sector continues to react to these challenges by shifting the business mix towards products with lower guaranteed returns which are directly linked to market performance and where the investment risk is borne by the policyholder.

Banks, in particular, remain vulnerable to several triggers that could lead to sharp downward adjustments in already weak profitability. For instance, negative revisions to the economic growth path could weigh on borrowers' debt servicing ability, especially in countries currently experiencing benign market sentiment. In addition, any further deterioration in some vulnerable EMEs also has the potential to weaken euro area banks' profitability – probably mainly via confidence and financial market channels.

From a policy perspective, the high level of NPEs needs to be addressed. The resolution of systemic NPE problems will take time and requires a comprehensive strategy, involving coordination of all relevant stakeholders. Such a comprehensive strategy should include, inter alia, measures that improve the legal environment by introducing efficient insolvency frameworks as well as speeding up debt recovery. In parallel, banks should strengthen internal workout capabilities, while authorities should support the development of an efficient NPE market as well as the carve-out of specific NPE portfolios and their transfer to special-purpose vehicles.

Risk 3: Rising debt sustainability concerns in sovereign and nonfinancial private sectors amid heightened political uncertainty and low nominal growth

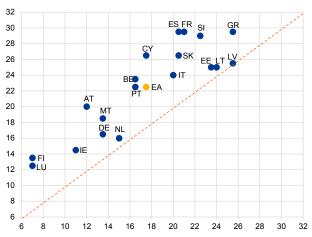
Euro area sovereign stress conditions continue to be relatively benign, but debt sustainability concerns remain. The composite indicator of systemic stress in euro area sovereign bond markets has remained close to the low levels seen before the start of the global financial crisis in 2008, not least due to the Eurosystem's measures – including stepped-up asset purchases adopted in March this year. The stable conditions reflect a gradual improvement in fiscal balances on account of the ongoing economic recovery. Fiscal positions are expected to improve in almost all euro area countries over the forecast horizon. At the same time, debt sustainability concerns remain, partly as a result of reduced reform efforts. Further progress with fiscal reforms would not only ensure long-term government debt sustainability, but also generate fiscal space to support the economic recovery. Similarly, structural

reform efforts have also lost momentum in the euro area in recent years. Debt sustainability concerns could also resurface if the economic outlook deteriorates, which would limit governments' room for manoeuvre for further fiscal adjustment.

Chart 8Political risks pose a challenge to fiscal and structural reform implementation

Political risk ratings in individual euro area countries

(x-axis: spring 2008; y-axis: spring 2016)



Sources: PRS Group (International Country Risk Guide – ICRG) and ECB calculations. Notes: The ICRG's political risk rating comprises the following sub-categories: (1) government stability, (2) socioeconomic conditions, (3) investment profile, (4) internal conflict, (5) external conflict, (6) corruption, (7) military in politics, (8) religious tensions, (9) law and order, (10) ethnic tensions, (11) democratic accountability and (12) bureaucracy quality. The risk ratings range from zero (highest risk) to 100 (least risk). The original values were transformed by subtracting them from 100 for illustration purposes. Spring 2008 values represent data for May 2008, while figures for spring 2016 are for April 2016 (i.e. the latest available figures). The euro area (EA) value is calculated as a simple average of the values for the individual euro area economies.

Political risks have increased across the euro area and pose a challenge to fiscal and structural reform implementation and, by extension, to public debt sustainability. Reform implementation may have become more difficult, as political risks have increased considerably in almost all euro area countries since the onset of the global financial crisis (see Chart 8). These rising political risks at both the national and supranational levels, as well as the increasing support for political forces which are seen to be less reformoriented, may potentially lead to the delay of much needed fiscal and structural reforms. This, in turn, may cause renewed pressure on more vulnerable sovereigns and potentially contribute to contagion and re-fragmentation in the euro area.

Debt sustainability concerns also prevail in the non-financial private sector. The non-financial corporate debt-to-GDP ratio remains high at the aggregate euro area level and in a number of euro area countries, by both historical and international standards. The level of euro area aggregated household indebtedness is lower (standing at around 65% of GDP), but the situation is very heterogeneous across the euro area. There are some countries with above-average household leverage

coupled with high and rising real estate prices. Lower than expected economic growth or a sudden worsening of financing conditions could lead to debt servicing problems for households in these countries. Overall, taking a holistic perspective to the indebtedness situation in the euro area, there are risks that an intensification of vulnerabilities in one sector could spill over to other sectors, with negative repercussions for the banking system.

Going forward, challenges to debt sustainability would in many ways be best addressed by sound macroeconomic policies. Placing debt on a sustainable path would also create space for more effective countercyclical stabilisation policies, while structural reforms would support potential growth of the economy.

Risk 4: Prospective stress in the investment fund sector amplified by liquidity risks and spillovers to the broader financial system

Risks stemming from a growing shadow banking sector remain a concern.

Across the non-bank sub-sectors, the main financial stability risks stem from parts of the investment fund sector. Over the past few years assets managed by investment

funds (other than money market funds) have expanded rapidly due to positive net inflows but also valuation effects (see **Chart 9**). Parts of the sector perform significant liquidity transformation and are also highly interconnected with other parts of the financial system. By the end of 2015 investment funds domiciled in the euro area were providing €1,200 billion in credit to euro area financials, €950 billion to euro area governments, and €330 billion to other euro area non-financials. Thus, higher stress in parts of the investment fund sector, triggered for instance by a sudden rise in redemptions, has the potential to propagate rapidly to other sectors.

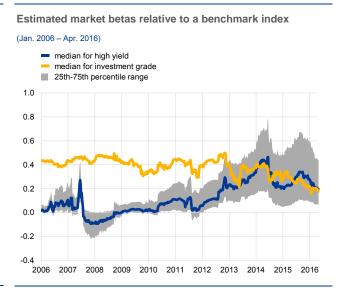
Chart 9Growing role of investment funds in channelling debt and equity to the domestic economy and abroad

Assets by type (Dec. 2010; Dec. 2015; EUR trillions) credit to EA financials credit to EA non-financials 10 (excl. gov.) credit to EA governments equities of EA financials 8 equities of EA non-financials Non-FA excl. gov.) (40%)EA non-financial assets non-EA credit non-EA equities remaining assets equities EΑ credit (24%) 0 December 2010 December 2015

Sources: ECB and ECB calculations.

Notes: Credit includes loans and debt securities; non-financial assets include real estate and other non-financial assets. The assets are valued by market prices. EA stands for auto area.

Chart 10 Bond fund exposures to the more risky segments of the market have increased



Sources: Lipper IM, Thomson Reuters Datastream, EPFR and ECB calculations. Notes: CAPM betas have been calculated for a rolling window of 52 weeks. The sample includes 2,600 bond funds, which are EUR-denominated, with a euro area investment focus, and not flagged as government bond funds. The underlying market benchmark is Barclay's Pan European High Yield index.

A large share of the increase in euro area investment fund total assets is related to growing exposures to non-euro area countries, including valuation effects. As a result, the euro area investment fund sector represents an important channel for inward and outward spillovers. Euro area investment funds hold €4.2 trillion of non-euro area assets, which is about 40% of total assets in the sector, up from 32% in 2010. Just as a shift in euro area sentiment can adversely affect markets abroad, a change in global risk perceptions can trigger outflows from euro area funds. In terms of country allocation, the sector's exposure to EMEs has been reduced in the recent quarters owing to valuation effects and portfolio reallocations, but also due to temporary outflows. This notwithstanding, the stress in EMEs has not triggered any sector-wide distress.

A portfolio shift towards lower-rated securities and an increase in residual maturities have persisted. Estimated market betas – measuring performance relative to either benchmark investment-grade or high-yield bond indices – point to an effective increase in risk-taking by bond funds, i.e. matching the observed shift in portfolio compositions. While return sensitivities to the investment-grade segment

have somewhat declined since 2011, sensitivities to the high-yield segment have markedly increased (see **Chart 10**). Since August 2014 market betas for the high-yield bond index have come down, yet remain at elevated levels compared with the period before 2012. The dispersion of market betas has also widened further, with funds in the upper 25th percentile range bearing significantly more market risk than before.

In the current low-rate environment, risk-taking by investment funds is likely to continue, which in turn may harbour the risk of a potential future unravelling.

Possible triggers for sector-wide outflows in the medium term include a further strong increase in global risk premia. Market-wide stress could lead to high redemptions or increased margin requirements, resulting in forced selling into illiquid markets. The impact of selling pressures on market conditions could be aggravated by correlated investments and herding among fund investors and asset managers.

While the investment fund sector is subject to prudential regulation, most existing rules lack a systemic perspective and may not be suited to preventing the build-up of sector-wide risks. Enhanced information on liquidity in stressed circumstances and on leverage (both traditional and synthetic) will need to be gathered to adequately monitor risks. Indeed, financial and survey-based indicators continue to suggest low secondary market liquidity (see Chart 2.16 in Section 2).

Policy considerations

Substantial progress made in several areas will contribute to reducing systemic risk and strengthening the resilience of the banking system. Looking ahead, the focus will be on completing the work on refining the elements of the Basel III framework by end-2016 without significantly increasing overall capital requirements. This includes the finalisation of the work aimed at addressing the problem of excessive variability in risk-weighted assets. The aim is to tackle the excessive and unwarranted variability in banks' risk measurement methods, reduce the complexity of the regulatory framework and improve the comparability of banks' capital ratios. Additional key elements to be finalised by the end of the year include agreement on the final design of the long-term liquidity requirements and the leverage ratio, as well as on the design and calibration of the revised standardised approaches for determining regulatory capital, the leverage ratio for global systemically important banks and simple and transparent securitisations. The finalisation of these elements will notably contribute towards reducing regulatory uncertainty, which has been considered by the banking industry as a key element to unlock funding and avoid further postponement of investment decisions. Importantly, this work will be completed with the focus on not significantly increasing overall capital requirements.

Work is also ongoing at the international and EU levels on the review of the regulatory standards for the prudential treatment of banks' exposures to sovereigns, but this work has a longer time frame. This review is motivated by the experience from the last financial crisis and the significant challenges that the

sources and channels of sovereign risk can pose to the banking system. This work is being carried out in a careful, gradual and holistic manner given that any change is expected to have a pervasive impact across the financial system. From the ECB's perspective, three principles should guide this work. First, it should be acknowledged that a regulatory change is needed. Second, due care should be taken to avoid an adverse impact on market functioning. And third, an international approach should be followed in the context of the Basel Committee on Banking Supervision's work.

Further key areas of macroprudential relevance include the revision of the crisis management and resolution framework. This framework aims to ensure that there will be sufficient loss-absorbing and recapitalisation capacity in banks to implement an orderly resolution, while minimising the impact on financial stability and avoiding the use of public money. The legislative proposal for a European Deposit Insurance Scheme (EDIS), together with a communication on completing banking union via "risk-mitigation" measures, are also considered to be key to preserve financial stability.

Finally, a range of regulatory initiatives aim to address risks in financial markets and financial infrastructures. In particular, enhancing prudential rules for market-based finance and investment funds, as well as setting oversight requirements for systemically important payment systems, as has been done by the ECB Regulation on such payment systems, are at the centre of attention from a macroprudential perspective. These are complemented by the European Commission's initiative to establish a capital markets union (CMU), which aims to establish a more diversified financial system that could increase the shock-absorbing capacity of the European economy and strengthen cross-border risk-sharing, thereby contributing to financial stability. With regard to the insurance sector, Solvency II – the new EU supervisory framework for insurance – has been applicable since 1 January 2016 and represents a major step towards supervisory convergence. At the international level, the assessment methodology for global systemically important insurers (G-SIIs), used since 2013, is currently under discussion.

A range of macroprudential measures have been implemented or announced in euro area countries over the last six months. The measures introduced have mainly been related to implementing the countercyclical capital buffer and a framework for systemically important institutions pursuant to the requirements of the Capital Requirements Directive IV. Additional measures targeted at risks related to residential real estate have been adopted in some euro area countries, with the aim of limiting undesirable developments in domestic property markets.